

## Remarks

Claims 15 to 19 are pending prior to this response and claims 15 to 23 are pending after entry of amendments.

In the office action of September 26, 2006, claims 15 to 19 have been rejected on various grounds. This response amends claims 15 to 19 and adds new claims 20 to 23. The new term "ion pair" added to the claims is supported, for example, on page 4-5 of the specification, on the bottom of page 8 and is not new matter. The condition of cationic N-C<sub>8-24</sub> acylamino acid and anionic amino acid recited in new claims 20 to 23 is supported, for example by the examples of the specification and is not new matter. Paragraph 45 56, for example, teaches the combination of the acyl amino acid (in which the amino acid is protonated) and alkali salt of the other amino acid, in which the other amino acid is an anion. The additional recitation in new claim 23 is taken from old claim 14 as filed, and is not new matter.

Amendments and arguments are presented in response to the examiner's arguments. Reconsideration and allowance of claims 15 to 23 respectfully are requested.

### Rejection under 35 USC 112

Claims 16-19 have been rejected because of dependency on a cancelled claim. The dependency has been corrected. Reconsideration and removal of the rejection earnestly are solicited.

### Rejections on 35 USC 102 and 103 Grounds

On pages 2 to 6 of the office action, the Examiner has rejected claims 15 to 19 on alleged 102(e) grounds over several references.

The cited art refers to a different type of composition however.

'836 As described on the lower section of page 4 of the office action, '836 concerns a N-acylamino acid "with a neutral amino acid such as glycine, and as required, a nonionic surfactant." Such "neutral" amino acid (zwitterionic having equal negative and positive charges that balance out) is a very normal, typical custom, which does not form a salt ion pair with the N-acylamino acid as contemplated by the claimed invention. Indeed, when such composition is made, this different material lacks the discovered lathering properties of the claimed invention.

In contrast, the claimed invention requires that a salt form between the N-acylamino acid and the other amino acid (such as glycine). This does not require a nonionic surfactant and in fact operates as a suitable surfactant with unexpected lathering properties. The claimed invention itself provides a surfactant, via the inventive combination of the specified cation and anion

complex. Original claims 1-14 make clear that this particular cation-anion complex is a "surfactant."

'261; '380; '378 As described from the bottom of page 4 to page 5 of the office action, these three other references do not concern an "essential" (1<sup>st</sup> line of paragraph 45 46, referring to the complex as the primary ingredient) salt complex formed from the specified cation and anion moieties but instead generally describe a "solid detergent composition" that has within it salt forms of different materials such as N-acylamino salts and other amino acid salts. These do not describe: i. a salt formed from an anionic N-C<sub>8-24</sub> acylamino acid and a cationic amino acid as specified and more particularly with acyl amino acid with 8-24 long carbon chain.

On page 5 the Examiner opines that such "detergent compositions specifically taught (in the cited references) will mix when used and inherently form the same surfactant as recited....." However, as mentioned above, the discovered properties of "does not make the hair stiff...not leave the skin taut....lathering ability..." (paragraph 46 47) do not arise from an ion pair complex acting as a trace factors or secondary ingredient, but instead predominantly the two recited moieties make an "essential" (dominating) salt having specific counterions or lack of counter ions. The discovered property of lathering as described in context of the examples and method of use indicate that the invention as claimed, is a specific salt of the two forms with each other before dissolving and mixing in water during use.

Addition of other cations such as sodium or potassium as suggested by the Examiner are not claimed and generally defeat (inhibit or block) the desired result of lathering. By having primarily the particular claimed cation and anion moieties, a lathering solution results. The invention is not a by-product minor salt combination in a larger mixture of other ions but specifically concerns a solution primarily of the cation(s) and anion(s) claimed. The discovered property from the solution, in fact is not present in the cited art, nor is the primary existence of the particular cation - anion pairs as claimed.

To more particularly point out these differences from the cited art, the term "ion pair" has been added to the claims. Such predominant ion pairing by a salt composition per se is not found in the cited art yet inherently and explicitly is described in the specification as an inventive property. See for example, pages 4-5 and on the bottom of page 8. To more distinctly point this out, further language is provided in new claims 20 to 23 ("[a]n ion pair surfactant salt of a N-C<sub>8-24</sub> acylamino acid cation and an amino acid anion").

In sum, the claimed invention is not simply a mixture of a long chain acyl amino acid (zwitter ionic or partially anionic) with another amino acid (zwitterionic or partially cationic). The cited art at best concerns these other ionic forms or mixtures with such forms as minor ingredients. The claimed invention, on the other hand, concerns a specific cation of the long chain acyl amino acid with anion of the other. Otherwise, no good lathering results. In this regard, applicant notes that the two moieties desirably are in relative stoichiometric ratios of 1:1; and that the identity of a dominating counter ion present in surfactants affect lathering. Further, the

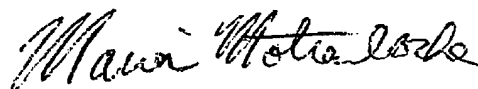
amphipathic long chain amino acid causes lathering, and lathering does not arise from any further added surfactant.

Because the amended claims are interpreted as having a feature that is not recited in any of the references, prima facie obviousness does not exist.

Reconsideration and allowance of the claims respectfully are requested.

Entry of the claim amendments reconsideration and allowance of amended claims earnestly are requested. If a telephonic interview can facilitate disposition of this case, the Examiner cordially is requested to contact the undersigned attorney at 202-659-0100.

Respectfully submitted,



Marvin Motsenbocker  
Reg. No. 36,614